

der putting green conditions, giving a good comparison of their qualities.

The next 15 plots are devoted to fertilizer experiments on putting green grasses (seeded German mixed bent). Here you can compare the fertilizers such as sewage sludge, poultry manure tankage, sulfate of ammonia, compost and sulfate of ammonia, nitrate of soda, urea, phosphate of ammonia, complete fertilizer 6-12-4, also 12-6-4, lime and sulfate of ammonia, and bone meal. These fertilizer results can be checked against each other and against check plots that received no fertilizer.

Two plots of putting green grass are devoted to arsenate of lead treatment. One plot is poisoned with arsenate before seeding, the other receives none. The purpose of this experiment is to see if arsenate retards weeds and eliminates grub worms, angle worms and ants. The same experiment is worked on two plots of fairway grasses, mostly for grub control.

Three plots of putting green grass and 3 plots of fairway grasses are used for cutting experiments. It is believed that cutting length has much to do with root growth and strength of the plant.

There are 5 trial plots of fairway grass mixtures. This is to determine the best. There is Kentucky blue, redtop and Chewings fescue, Kentucky blue and redtop; Kentucky blue, redtop and German mixed bent; Rhode Island bent, and Chewings fescue; and German mixed bent.

Ten plots are for fertilizer experiments on fairway grasses (Kentucky bluegrass and redtop mixture). The fertilizers used are bone meal, lime, sulfate of ammonia, sewage sludge, manure, complete 6-12-4 and 12-6-4. These fertilizers can be checked against each other and against plots that received no fertilizer.

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Fairway Grasses

By DR. JOHN MONTEITH

FOR FAIRWAY grasses in this section I think you are interested in Kentucky bluegrass. There are three other kinds of bluegrass, Canada blue, rough stalk blue and annual blue which are ordinarily planted in this section of the country. Canada blue is used in Ontario and in the south where the soil is too poor for Kentucky bluegrass. It is not as desirable as the Kentucky bluegrass.

Redtop is also used. Kentucky blue and redtop is a mixture that is most common-

ly preferred on the fairway. Kentucky blue is slow to grow and redtop is a fast grower and a short lived grass so that by the time the redtop is gone the bluegrass has become established. Sometimes Colonial bent is added to redtop. You reduce the amount of redtop and add Colonial bent. Colonial bent is longer lived than redtop, is finer, and remains finer; also has a tendency to give a nice green mat and cover up the bare spaces.

Red fescue and Chewings fescue are important. Where grounds are established they make excellent fairway grasses. They are not as certain as Kentucky bluegrass, exhibiting a tendency to be more choosy of the soil conditions. Fescues are a much safer bet on fairways than on putting greens. There is a great deal of sheep fescue on the market, but it has a tendency to bunch, and bunch grass has no place on a fairway. It is an excellent grass for the rough but not desirable for fairways.

I have seen some very satisfactory fairways planted with creeping bent. We can see no distinct advantage of creeping bent on fairways over the other grasses. Other grasses tend to grow more upright. If you are cutting real close the creeping bent is the best. There is no advantage for creeping bent except from the standpoint of the nurseryman. There have been other grasses used in mixtures, but in this section of country the Kentucky blue, redtop, Colonial bent, and Chewings fescue are good.

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Trees for Golf Courses

By E. G. CHEYNEY

CERTAINLY there is no place where a tree has any more value aesthetically than on a golf course. People go out to play for pleasure and they want all the pleasure that they can get. A golf links that is artistic is much more enjoyable than an open field. Nothing is thoroughly beautiful if it is not useful.

Trees can be used to define or mark out your fairways. You can put them in pretty close around the tees. They can be planted for protection for the players. Sometimes they can be planted to screen a tee that is exposed to other shots. Make new hazards by planting trees.

There are places where you cannot use anything but low growing shrubs or the Mugo pine. This pine never grows high, and it will make a very beautiful tree,